

AQUATIC ANTIFOULING FACT SHEET

Aquatic antifouling paints are considered pesticides because they prevent the growth of certain pests, in this case aquatic organisms such as barnacles and algae. Pesticides are regulated on the federal level by the Environmental Protection Agency (EPA) and on the state level by the Washington State Department of Agriculture (WSDA). The three main pesticide responsibilities of these agencies are: 1) registration of pesticides; 2) licensing of individuals involved with the use of pesticides; and, 3) enforcement of federal and state pesticide laws.

Provisions of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), the federal pesticide law administered by EPA, allow that all pesticides be categorized as either general use or restricted use. Pesticides are placed into the restricted use category if they pose undue risk to the environment and/or animals and humans, particularly the applicator. A restricted use pesticide is regulated more stringently than a general use pesticide. Because of increased environmental concerns, antifouling paints containing tributyltin (TBT) are classified as restricted use pesticides; those containing copper are classified as general use pesticides.

Restrictions on the Use of TBT Antifouling Paints

Restricted Use Pesticides

As of March 1, 1990 all Tributyltin (TBT) Antifouling Paints, with the exception of 16 ounce or less aerosol containers labeled solely for application to outboard units, became federal restricted use pesticides. Prior to this time, TBT paints were regulated along with other antifouling paints, such as those containing copper, as general use pesticides.

TBT paints gained the restricted use pesticide designation because of their acute (from short term exposure) and chronic (from long term exposure) toxicity to nontarget aquatic organisms such as fish, bivalves (ex. oysters), gastropods (ex. marine snails), crustaceans (ex. shrimp and crab) and algae. Levels of TBT that have been shown to cause toxic effects in sensitive aquatic organisms have been found in the waters in and around marinas, drydocks and poorly flushed harbors.

The labels of TBT antifouling paints which are restricted use pesticides will carry a statement such as the following:

“Restricted Use Pesticide due to toxicity to aquatic organisms, including shellfish: For sale only to certified commercial applicators and for use only by persons under the direct supervision of an on-site (at the work site) certified commercial applicator. These restrictions become effective on March 1, 1990.”

This statement must be prominently displayed at the top of the label's front panel. Labels of general use pesticides, such as those found on copper antifouling paints, will have no indication of their classification status because they are not restricted use.

Other Restrictions

In addition to designating TBT antifouling paints as restricted use pesticides, EPA and the Organotin Antifouling Paint Control Act of 1988 (OAPCA) established the following restrictions:

- (1) The use of TBT products on vessels less than 82 feet (25 meters) in length, except those with aluminum hulls, is prohibited. (This restriction does not apply to the outboard motor or lower drive unit of a vessel less than 82 feet in length.);
- (2) The organotin release rate cannot exceed 4 up (micrograms)/cm² (centimeters squared)/day. (The release rate is the amount of organotin given off by a painted surface);
- (3) The labeling must require compliance with applicable OSHA regulations and must contain the following directions for use:
 - (a) "During and after paint removal and/or application of new TBT paint, employ methods designed to prevent introduction of TBT paints into aquatic environments."
 - (b) "Following removal of TBT paint and/or application of new TBT paint, all paint chips and spent abrasives, paint containers, unused paint, and any other waste products from paint removal or application must be disposed of in a sanitary landfill."**

*Also known as municipal solid waste landfill.

*As indicated in the "State Laws Affecting Pesticide Users" section of this fact sheet, Washington State requirements are often more restrictive than the federal ones indicated on pesticide labels. The Department of Ecology (DOE) may classify the wastes cited above as dangerous waste thus requiring that they be containerized and disposed of in accordance with state and federal hazardous waste regulations. For further information, contact DOE at the telephone numbers listed on the last page.

Licensing

Pesticides which are restricted use (such as TBT antifouling paints) can only be bought and applied by licensed pesticide applicators or individuals under their direct supervision. Most individuals involved in the **commercial*** application of pesticides (restricted use or general use) must be licensed or under the direct supervision of a

properly licensed applicator. Direct supervision in the state of Washington is defined as direct “on the job” supervision requiring that the licensed person keep the unlicensed applicator within eye- and earshot. In addition, distributors are required by law to only sell restricted use pesticides to licensed applicators, or their duly authorized representatives.

**Please note: As of 12/5/94, Washington boatyards which apply only general use pesticides (such as those containing copper) do not need to be licensed as Commercial Applicators. These exempted businesses may not use restricted use pesticides and they may not advertise that they perform pesticide applications.*

Dealers of all pesticides, except those labeled solely for home and garden use, are required to be licensed as well. (General use antifouling paints in one gallon or less size containers are considered to be home & garden pesticides for this licensing requirement.)

License Types

Persons who apply and/or sell antifouling paints may require one or a combination of the seven following licenses:

- (1) Commercial Applicator - the head of a business that commercially applies pesticides to the property of another. (See note at top of page.) The annual license fee is \$170. Commercial Applicators are required by Washington pesticide law to carry a bond or liability insurance policy in the amount of \$50,000 property damage (to cover property other than that receiving the pesticide applications) and \$50,000 public liability with no greater than a \$5,000 deductible for each. If the bond or insurance policy lapses or is reduced below the set limits, the Commercial Applicator license is automatically suspended until the bond or insurance is adequately reinstated. As the head of the commercial pesticide application business, the Commercial Applicator can be held responsible for the actions of the pesticide applicators they employ.

Evidence of financial responsibility is supplied to WSDA via the Financial Responsibility Insurance Certificate (FRIC) which is completed by the insuring company. A current, properly executed FRIC must be on file at all times in order for the Commercial Applicator license to be valid.

- (2) Commercial Operator - the pesticide applying employees of a Commercial Applicator. The annual license fee is \$50.
- (3) Private Commercial Applicator - person who applies restricted use pesticides to their own or their employer's property. Therefore, use of restricted use TBT paints would require this license while use of only copper antifouling paints would not. The annual license fee is \$25.

- (4) Dealer Manager - individual licensed to sell non-home & garden pesticides from an authorized Pesticide Dealer outlet. Although the pesticide Dealer Manager license is administered by WSDA, the Pesticide Dealer endorsement to the Master Business License is obtained through the Department of Licensing (360-753-4401). The annual license fee for the Dealer Manager license is \$25.
- (5) Commercial Consultant - any individual who sells pesticides or offers pesticides for sale at other than a licensed pesticide dealer outlet or location, or who offers or supplies technical advice, aid, or makes recommendations to pesticide users. The annual license fee is \$45.
- (6) Public Operator - individual who, while acting as an employee of a government agency, applies restricted use pesticides by any means or general use pesticides by power equipment on public or private property. The annual license fee is \$25.
- (7) Public Pest Control Consultant - individual who, while acting as an employee of a government agency, offers or supplies technical advice, aid or makes recommendations to the users of pesticides other than home and garden products. The annual license fee is \$25.

Examination Requirements

All the license types defined above are required to take the Aquatic Antifouling exam. This exam covers pesticide laws, application safety, and use of aquatic antifouling paints. The information contained within this fact sheet along with portions of the Washington State University (WSU) manual entitled "Washington Pesticide Laws and Safety" (WSU Bulletin Misc 0056) is adequate study material for those interested in taking the exam. A passing score of 70% or above is required for the exam.

The Laws and Safety manual is available through WSU's Bulletin Office (509-335-2948/ (http://pep.wsu.edu/Education/Materials/Study_Material_Order_Form) or perhaps from your local county extension agent. Order forms for the study manual are available from WSDA or WSU's Bulletin Office. Once you have obtained this manual, you should study all portions except the following:

- chapter on "Pesticide Formulations"
- section on "Worker Protection Standards"
- section on "How Organophosphate or Carbamate Insecticides Poison"
- section on "Mixing and Loading"
- sections on "Wood Destroying Organism Inspection Reports, "Agricultural Field Posting", "Ornamental Posting," and "Pesticide Sensitive Persons."

Individuals interested in taking pesticide exams should contact WSDA toll free at 1-877-301-4555. Scheduled exam sessions occur on Tuesdays at 8:30 a.m. and 1:00 p.m. sharp. Reservations are necessary in order to guarantee a seat. Parking at the Olympia office is limited and requires a fee. Carpooling is encouraged.

Recordkeeping

RCW 17.21.100 of the Washington Pesticide Application Act requires that all licensed pesticide applicators maintain records of the applications they perform. The state recordkeeping requirements are contained in this cited RCW as well as WAC 16-228-190 of the WSDA Rules Relating to General Pesticide Use. State application records shall be updated daily, when applicable. In addition, EPA requires that records be kept on the location of disposal sites of TBT containing dust, chips, and/or other TBT wastes generated by users. Dealers are required to maintain records on the sales of restricted use pesticides, such as those containing TBT. The recordkeeping requirements are identified in WAC 16-228-164(4). Application and dealer records must be maintained for a period of 7 years. (Refer to the recordkeeping fact sheet in the enclosed “Washington Pesticide Laws Hand-Out Booklets” for more specific information.)

Pesticide Labels

Federal law establishes pesticide labels as legal documents binding on those using, distributing and/or making recommendations on the use of the products. All registered pesticide labels contain the statement; “It is a violation of federal law to use this product in a manner inconsistent with its labeling.” (Labeling is defined under Washington law as “all labels and other written, printed, or graphic matter...”) Therefore, not only is label information invaluable in ensuring the proper use of a product, but it is legally binding. Persons involved with the use of pesticides must adhere to all restrictions, precautions and directions for use. Deviations from the label, except in very rare circumstances, is prohibited.

Deviation from product labels is required in instances where state or other local laws are more restrictive. For example, TBT paint labels are required to contain a statement about disposing of all TBT related wastes in a sanitary landfill. As indicated previously, in Washington these wastes may have to be disposed of in accordance with the state Dangerous Waste Regulations. If they are designated dangerous wastes, disposal according to the product label (i.e. at a sanitary landfill) may be in violation of these regulations. Again, refer to the DOE information under “State Laws Affecting Pesticide Users” and contact DOE for specific state requirements, particularly in regards to hazardous waste disposal.

Label Violations

The statement, “...in a manner inconsistent with its labeling”, prohibits most activities not expressly allowed on the label, even if the label does not prohibit the activity.

Therefore, in the case of TBT paints, it would be illegal to do any of the following:

- apply the product to a non-aluminum hulled vessel less than 82 feet in length (see (1) under “Other Restrictions”);

- introduce any TBT antifouling paint or residue into an aquatic environment (see (3)(a) under “Other Restrictions”);
- sell the product to an unlicensed individual (see the section of “Restricted Use Pesticides”);
- use the product without first being properly licensed or being under the direct supervision of a licensed individual (see the section on “Restricted Use Pesticides”);
- noncompliance with all applicable OSHA requirements (see (3) under “Other Restrictions”).

In the case of the application of any antifouling paint, it would be illegal to:

- wear less protective equipment or clothing than specified on the product labeling;
- ignore any other label precautions, restrictions, or directions for use.

State Laws Affecting Pesticide Users

WSDA enforces both federal and state pesticide laws. FIFRA provides that states can adopt pesticide laws which are more restrictive than federal law and in some areas Washington State has done so. Therefore, individuals involved with pesticide use should not only comply with the information provided on pesticide labeling, as required by federal law, but they should also be aware of any applicable state and local laws which may take precedence over the less restrictive federal ones. In most circumstances, as indicated above in regard to waste disposal, pesticide labels will not reflect these more restrictive state requirements even though the user, dealer, and/or consultant is expected to comply with them.

WSDA administers Washington pesticide law under the following:

- (1) Washington Pesticide Control Act (15.58 RCW)
- (2) Washington Pesticide Application Act (17.21 RCW)
- (3) Rules Relating to General Pesticide Use (WAC 16-228)

An example of Washington pesticide law being more restrictive than label requirements is in the area of storage. The wording found on the labels of TBT paints under the section “Storage and Disposal” is, “Do not contaminate water, food, or feed by storage or disposal...” Washington law is far more specific in regards to storage of pesticides, such as TBT paints, which contain a label signal word of “Danger”. WAC 16-228-185(6)(d) and (7) of the General Pesticide Rules require that Category 1 pesticides (those containing the signal word of “Danger”) be stored in an enclosure identified in the WAC and that the enclosure be locked, when unattended, and posted with applicable warning signs (also identified in the WAC). Pesticides which have a designated label signal word

of “Warning” or “Caution” are required to be securely stored, out of the reach of children, in an enclosure identified in the above cited WAC.

Laws administered by other city, county and state agencies may, as well, be more restrictive than the information provided on pesticide labels. For instance, the Department of Ecology (DOE) regulates hazardous waste disposal in Washington State. This agency has extensive laws in the area of hazardous waste disposal and, therefore, should be contacted prior to any disposal of TBT paint, TBT waste products, paint chips and spent abrasives, paint containers, and any other waste products from paint removal or application, or if a hazardous substance spill occurs. In addition, DOE is the lead agency for protecting Washington waters and should be contacted immediately in the event of an accidental release of a hazardous material into a waterway. The Department of Labor & Industries (L&I) regulates laws to protect workers from exposure to unsafe and hazardous work environments. The federal OSHA (Occupational Safety & Health Act) requirements, which antifouling paint levels require compliance with, are enforced on the state level by L&I. In addition, L&I has specific state laws administered under WISHA (Washington Industrial Safety and Health Act) which may be more restrictive than the applicable OSHA requirements. In the event of a human pesticide exposure, the Department of Health (DOH) must be notified. DOH investigators are trained to evaluate cases of potential pesticide exposure to humans and animals. They can provide information on pesticide toxicology and means to prevent future exposures.

Violations of State Pesticide Law

RCW's 15.58.260 and 17.28.315 provide for the imposition of a civil penalty and/or pesticide license denial, suspension, or revocation in the event of pesticide law violations. The civil penalty can be as high as \$7,500/violation. Most pesticide investigations conducted by WSDA involve multiple violations. In addition, persons who violate state pesticide law are deemed guilty of a misdemeanor and a gross misdemeanor for any second and subsequent offense. EPA also has the authority to administer federal penalties.

Additional Information

As this fact sheet has demonstrated, individuals involved with pesticide use are expected to be knowledgeable about the products they use and to comply with a number of legal requirements. It is safe to say that your task at hand will be difficult, but for your own protection, you should become familiar with the different agencies and laws which affect you. Some phone numbers are provided below. In addition, the National Paint & Coatings Association has published the guide, “Certification Training for Safe Handling and Use of Antifouling Paints containing Tributyltin (TBT). The guide has been reviewed by the EPA and is recommended by WSDA for those individuals involved with the use of TBT paints.

AGENCY CONTACT INFORMATION

WASHINGTON DEPARTMENT OF ECOLOGY

www.ecy.wa.gov

Spills and Hazardous Waste Disposal

NW Regional Office - Redmond.....425-649-7246
SW Regional Office- Olympia.....360-407-6340

General Hazardous Waste Disposal Questions

Tom Cusack.....360-407-6755

WASHINGTON DEPARTMENT OF LABOR & INDUSTRIES

www.lni.wa.gov

Safety & Health - Olympia.....360-902-5470

WASHINGTON DEPARTMENT OF HEALTH

www.doh.wa.gov

Toxic Substances Section

Maryanne Guichard.....toll free, 888-586-9427

WASHINGTON STATE DEPARTMENT OF AGRICULTURE

www.wa.gov/agr

Pesticide Management Division

Licensing/Compliance.....toll free 1-877-301-4555
Email.....license@agr.wa.gov
Email.....compliance@agr.wa.gov

Web site (copies of laws, rules, etc.)www.wa.gov/agr/pmd